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[54] **BAR CODE READING SYSTEM AND METHOD**

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Related U.S. Application Data

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[51] Int. Cl.^{3} **G06K 7/10**

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[58] Field of Search 235/462, 463, 472

[56] **References Cited**

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[57] **ABSTRACT**

A bar.code reading system having a wand that detects variations in light reflected by bars and spaces of the label produces a sequence of corresponding pulses and intervals as the wand scans the label. The entire sequence of pulses and intervals is input to a microprocessor system which produces corresponding digital duration numbers. The microprocessor system computes a reference number for a first character of the label and compares each digital duration number of the character to the reference number to compute a binary number with bits that are a "one" or a "zero" according to whether corresponding digital internal numbers exceed or are less than the reference number. If the number of "ones" in the binary number is too low or too high, the microprocessor decreases or increases the reference time, compares the digital duration number with the adjusted reference number, and re-determines if the resulting value of the binary number has the correct number of "ones". This compensates for variations in scan speed over different characters of the label.

20 Claims, 8 Drawing Figures